

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

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| <i>In re</i> Patent Application of: |) | |
| Tony Amato et al. |) | Confirmation No.: 2453 |
| Application No.: 10/534,124 |) | Examiner: Bryan P. Gordon |
| Filed: November 18, 2005 |) | Art Unit: 2837 |
| For: ULTRASOUND APPARATUS AND THE MANUFACTURE THEREOF |) | |

MAIL STOP APPEAL BRIEF – PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REPLY BRIEF

This Reply Brief is submitted in response to the Examiner's Answer mailed February 3, 2010.

This Appeal responds to the April 29, 2009, final rejection of claims 1-9. Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the final rejection of these claims.

If any additional fees are required or if the enclosed payment is insufficient, Appellants request that the required fees be charged to Deposit Account No. 19-2380.

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In re Piasecki, 745 F.2d 1468, 1472,223 USPQ 785, 788 (Fed. Cir. 1984)

In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)

I. STATEMENT OF ADDITIONAL FACTS

Appellant provides no additional facts necessary for consideration of the arguments set forth in detail below.

II. ARGUMENTS

In view of the Examiner's Answer, the appellant's position remains unchanged and all previous arguments submitted in the Appeal Brief are maintained. In response to the section entitled “(10) *Response to Argument*” of the Examiner's Answer, Appellant adds the following comments.

Examiner's Answer Point 1 - Unexpected Advantages

On page 8 of the Examiner's arguments, the Examiner firstly contends that it would not have been something unexpected to one of ordinary skill in the art that the improved longevity and reduced servicing requirements of the present invention would have significantly outweighed the loss of design and operational flexibility associated with forming the components integrally. Appellant would however point out that the Examiner has not provided any evidence or basis to support this assertion.

In this connection, the Examiner contends that “*it would have been expected that the ultrasonic horn was made from one piece instead of multiple parts there would be no discontinuities between the parts which would lead to less chance of failure*”. However, it is pointed out that the assessment as to whether something would be considered unexpected is to be made by “*one of ordinary skill in the art*”. As explained in the Appeal Brief, prior to the present invention, conventional boosters were always provided as separate components because of clear operational requirements in the field of ultrasonic apparatus, i.e. so that different boosters could be attached and failed boosters could be replaced. Accordingly, prior to the present invention **a person of ordinary skill in the field of ultrasonic apparatus would have believed that the booster must be formed separably in order to fulfil the specific operational requirements of this technical field.** This is why the all of the boosters disclosed in the prior art are provided as separate components, including in Ehlert.

Accordingly, the Examiner's assertion ignores the fact that the skilled person in the field of ultrasonic apparatus would have believed that the booster must be formed separably.

Furthermore, even if a skilled person were to have envisaged that forming a device without discontinuities could improve longevity, which Appellant re-iterates that there is no evidence of, there is nevertheless **nothing to suggest to a person skilled in the field of ultrasonic apparatus that any such benefits would have outweighed the loss of design and operational flexibility** associated with forming the components integrally. Indeed, as explained above, there was a clear **technical prejudice** in the field of ultrasonic apparatus against forming an ultrasonic device with an integral booster. Accordingly, the advantages present invention are both unexpected and surprising.

Moreover, as discussed previously, the Examiner in any event bears the initial burden of establishing a prima facie case of obviousness (see *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ 1443, 1444 (Fed. Cir. 1992) and *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984)). The Examiner has failed in this because the Examiner cannot provide any evidence of any objective teaching in the prior art which suggests the claimed subject matter (see *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)).

There is therefore simply no teaching, suggestion, or motivation which would prompt the skilled person to modify the arrangements disclosed in the prior art to form the components integrally. Furthermore, there was even a technical prejudice in the art against doing so. Therefore, any assertion by the Examiner otherwise can only be made on the basis of impermissible hindsight as no evidence has been provided to the contrary. Indeed, if the advantages of forming the booster integrally were as obvious as the Examiner contends, why has the Examiner been unable to find even a single prior art document which suggests providing such an arrangement.

Examiner's Answer Point 2 - Howard v. Detroit Stove Works

With regard to the Examiner's second argument relating to the *Howard v. Detroit Stove Works* 150 U.S. 164 (1893) case, Appellant maintain that the Examiner's application of

the teaching of this case is incorrect, that this case is not relevant to the present case, and that this view is supported by prevailing case law.

In this connection, the Examiner contends that although Kreuter might not teach that the parts could be integrally formed, it provides evidence that the components could be integrally formed if you apply the *Howard v. Detroit Stove Works* case. Appellant disagrees.

As explained in the Appeal Brief, Kreuter teaches that its extender and nozzle (applicator) should be formed as separate components to permit different nozzles to be attached to the electrostatic horn (see Kreuter, for example, col. 5, 11. 35-44). Indeed, Kreuter even teaches away from the integral construction taught by the present invention in that it teaches a complex design which could not be formed integrally. Therefore, not only does Kreuter provide no evidence that the components of an electroacoustic horn could be formed integrally, but to suggest otherwise, as the Examiner does, would require you to totally ignore the actual teaching of this document.

As discussed in the Appeal Brief, *Howard v. Detroit Stove Works* does not give the Examiner licence to create broad conclusory statements regarding the teaching of the prior art, nor does this case allow the Examiner to ignore the actual teaching of a prior art document. Accordingly, the Examiner cannot sustain the argument that Kreuter in combination with *Howard v. Detroit Stove Works* provides evidence that its components could be formed integrally.

Furthermore, Appellant reiterates that to satisfy the burden of showing obviousness, the Examiner is required to show some objective teaching in the prior art or knowledge generally available to one of ordinary skill in the art suggests the claimed subject matter (see *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)). The Examiner has failed to meet this burden.

Examiner's Answer Point 3 - Kreuter and Ehlert

Finally, on page 9 of the Examiner's answer, the Examiner further contends that it would have been obvious to one of ordinary skill to integrally form the applicator and

extender of Kreuter with the booster of Ehlert in view of the *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893) case. Appellant disagrees with this contention for at least the above reasons, as well as those previously made in the Appeal Brief.

In this connection, Ehlert teaches booster which is provided as a separate, detachable, component (see Ehlert, e.g., col. 14, 11. 62-68 and Fig. 6). Therefore, the Examiner has failed to provide any evidence that it was either known or suggested to one of ordinary skill in the art that a booster could be formed integrally. Again, *Howard v. Detroit Stove Works* does not give the Examiner licence to create broad conclusory statements regarding the teaching of the prior art. The Examiner has therefore again failed to satisfy the burden of showing some objective teaching in the prior art which suggests the claimed subject matter (see *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)).

In summary, the Examiner has failed to provide any evidence that it was either known or suggested to one of ordinary skill in the art to modify the Kreuter or the Ehlert references to obtain the invention as recited in claim 1. At the time of the invention, such a construction with an integrally formed applicator, extender and booster represented a significant departure from conventional ultrasonic devices. This is exemplified by Kreuter teaching away from such a construction, Ehlert specifically identifying that its booster is not integrally formed, and the Examiner failing to provide any evidence showing there would have been any motivation or incentive for the skilled person to modify an ultrasonic horn in this way. Accordingly, the invention as defined in independent claim 1 cannot be considered to be obvious in view of Kreuter or Ehlert, whether taken alone or in combination.

III. CONCLUSION

For at least the above reasons, and the reasons set forth in the Appeal Brief, the Applicants therefore respectfully request that the rejection under 35 U.S.C. § 103(a) be withdrawn, and that independent claim 1 be allowed. Claims 2-9 are also allowable at least by virtue of their dependency from independent claim 1, but also because they are distinguishable over the prior art.

Since the Examiner's final rejections under 35 U.S.C. § 103(a) are inappropriate for the reasons set forth in the Appeal Brief filed September 8, 2009 and above, Appellant respectfully requests the Board to reverse each ground of the rejections.

Respectfully submitted,

Date: April 5, 2010

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